

## **EXHIBIT 4**

# **VALUATION**

## **MEASURING AND MANAGING THE VALUE OF COMPANIES**

**SEVENTH EDITION**

**McKinsey & Company**

**Tim Koller**

**Marc Goedhart**

**David Wessels**

**WILEY**

Cover design: Wiley

Copyright © 1990, 1994, 2000, 2005, 2010, 2015, 2020 by McKinsey & Company. All rights reserved.

Published by John Wiley & Sons, Inc., Hoboken, New Jersey.

Published simultaneously in Canada.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning, or otherwise, except as permitted under Section 107 or 108 of the 1976 United States Copyright Act, without either the prior written permission of the Publisher, or authorization through payment of the appropriate per-copy fee to the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923, (978) 750-8400, fax (978) 646-8600, or on the Web at [www.copyright.com](http://www.copyright.com). Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, (201) 748-6011, fax (201) 748-6008, or online at <http://www.wiley.com/go/permissions>.

**Limit of Liability/Disclaimer of Warranty:** While the publisher and author have used their best efforts in preparing this book, they make no representations or warranties with respect to the accuracy or completeness of the contents of this book and specifically disclaim any implied warranties of merchantability or fitness for a particular purpose. No warranty may be created or extended by sales representatives or written sales materials. The advice and strategies contained herein may not be suitable for your situation. You should consult with a professional where appropriate. Neither the publisher nor author shall be liable for any loss of profit or any other commercial damages, including but not limited to special, incidental, consequential, or other damages.

For general information on our other products and services or for technical support, please contact our Customer Care Department within the United States at (800) 762-2974, outside the United States at (317) 572-3993 or fax (317) 572-4002.

Wiley publishes in a variety of print and electronic formats and by print-on-demand. Some material included with standard print versions of this book may not be included in e-books or in print-on-demand. If this book refers to media such as a CD or DVD that is not included in the version you purchased, you may download this material at <http://booksupport.wiley.com>. For more information about Wiley products, visit [www.wiley.com](http://www.wiley.com).

#### Library of Congress Cataloging-in-Publication Data

Names: McKinsey and Company. | Koller, Tim, author. | Goedhart, Marc H., author. | Wessels, David, author.

Title: Valuation : measuring and managing the value of companies / McKinsey & Company, Tim Koller, Marc Goedhart, David Wessels.

Description: Seventh edition. | Hoboken, New Jersey: Wiley, [2020] |

Series: Wiley finance | First edition entered under: Copeland, Thomas E.

Identifiers: LCCN 2020013692 (print) | LCCN 2020013693 (ebook) | ISBN 978-1-119-61088-5 (Hardcover) | ISBN 978-1-119-61087-8 (ePDF) | ISBN 978-1-119-61092-2 (ePub) | ISBN 978-1-119-61186-8 (University Edition) | ISBN 978-1-119-61246-9 (Cloth edition with DCF Model Download) | ISBN 978-1-119-61181-3 (Workbook) | ISBN 978-1-119-61086-1 (DCF Model Download)

Subjects: LCSH: Corporations—Valuation—Handbooks, manuals, etc.

Classification: LCC HG4028.V3 C67 2020 (print) | LCC HG4028.V3 (ebook) | DDC 658.15—dc23

LC record available at <https://lcn.loc.gov/2020013692>

LC ebook record available at <https://lcn.loc.gov/2020013693>

Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

## Why Value Value?

---

The guiding principle of business value creation is a refreshingly simple construct: companies that grow and earn a return on capital that exceeds their cost of capital create value. Articulated as early as 1890 by Alfred Marshall,<sup>1</sup> the concept has proven to be both enduring in its validity and elusive in its application.

Nevertheless, managers, boards of directors, and investors sometimes ignore the foundations of value in the heat of competition or the exuberance of market euphoria. The tulip mania of the early 1600s, the dot-coms that soared spectacularly with the Internet bubble, only then to crash, and the mid-2000's real estate frenzy whose implosion touched off the financial crisis of 2007–2008 can all to some extent be traced to a misunderstanding or misapplication of this guiding principle.

At other moments, the system in which value creation takes place comes under fire. That happened at the turn of the twentieth century in the United States, when fears about the growing power of business combinations raised questions that led to more rigorous enforcement of antitrust laws. The Great Depression of the 1930s was another such moment, when prolonged unemployment undermined confidence in the ability of the capitalist system to mobilize resources, leading to a range of new policies in democracies around the world.

Today many people are again questioning the foundations of capitalism, especially shareholder-oriented capitalism. Challenges such as globalization, climate change, income inequality, and the growing power of technology titans have shaken public confidence in large corporations.<sup>2</sup> Politicians and commentators push for more regulation and fundamental changes in corporate

<sup>1</sup> A. Marshall, *Principles of Economics* (New York: Macmillan, 1890), 1:142.

<sup>2</sup> An annual Gallup poll in the United States showed that the percentage of respondents with little or no confidence in big business increased from 27 percent in 1997 to 34 percent in 2019, and those with “a great deal” or “quite a lot” of confidence in big business decreased by five percentage points over that period, from 28 percent to 23 percent. Conversely, those with “a great deal” or “quite a lot” of confidence in small business *increased* by five percentage points over the same period (from 63 percent in 1997 to 68 percent in 2019). For more, see Gallup, “Confidence in Institutions,” [www.gallup.com](http://www.gallup.com).